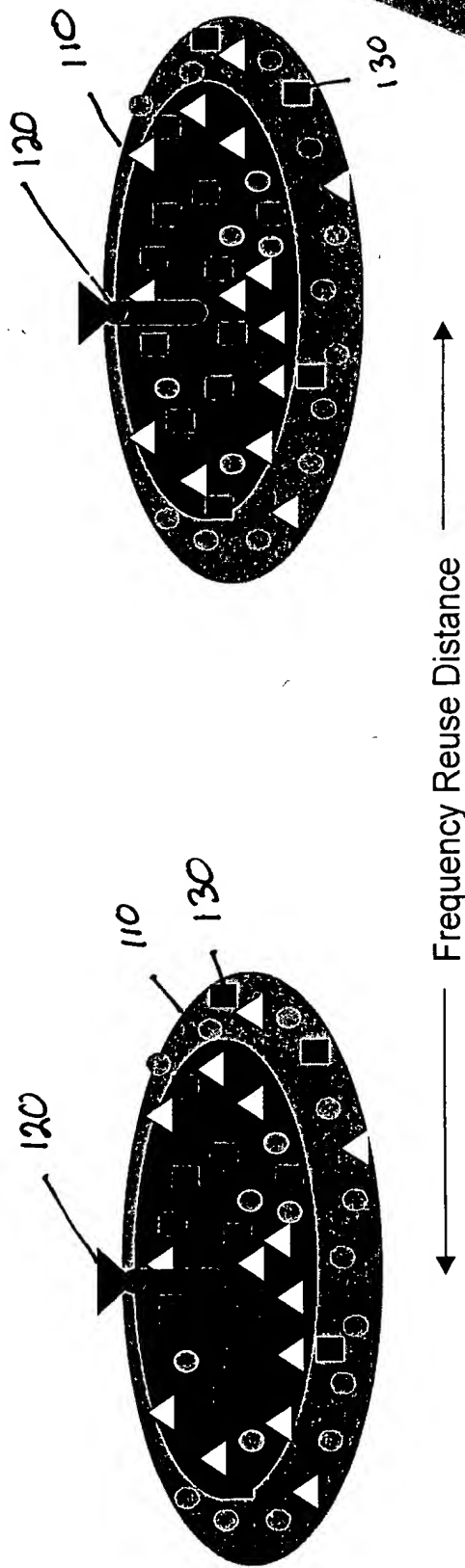


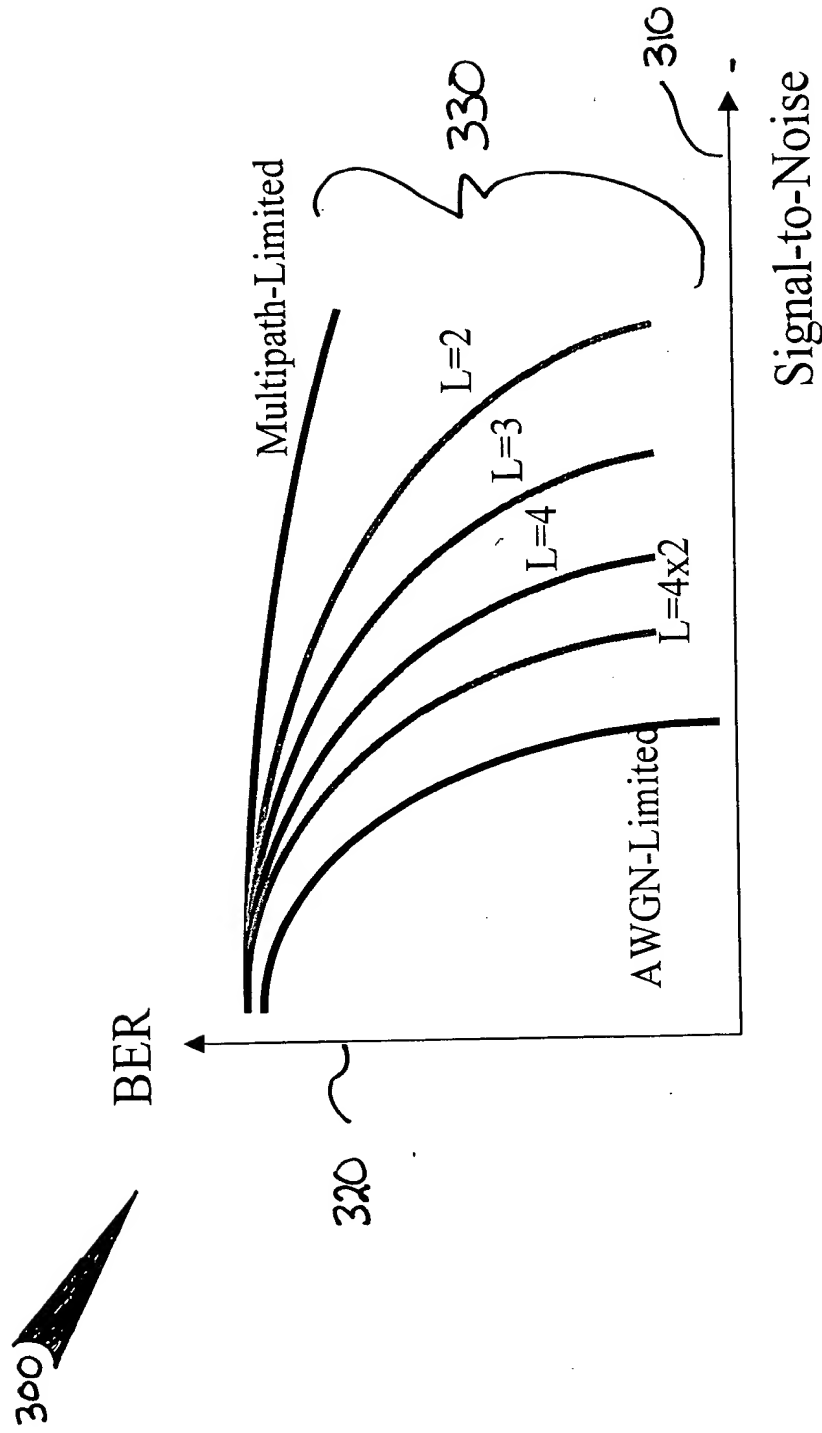
Current Architectures assume all subscribers connections are similar
Aperto' OptimaLink optimizes each subscriber connection (MAC & PHY)
The Benefit: Maximizing Robustness & Spectrum Utilization

OptimalLink Frequency Reuse Advantage

Shorter Frequency Reuse Distance due to more interference-robust modulation at the cell boundary

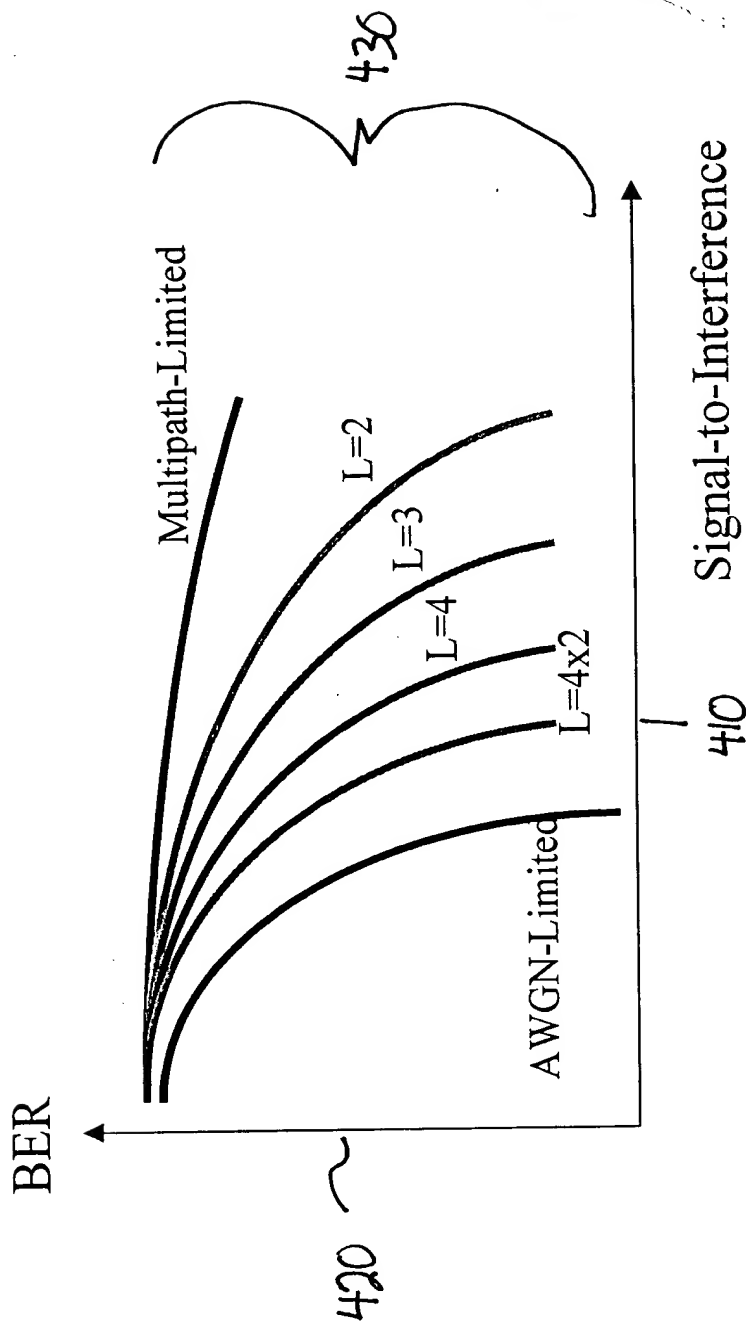


Optimal Link Multipath-Robustness Advantage Adaptive Antenna Spatial & Polarization Diversity



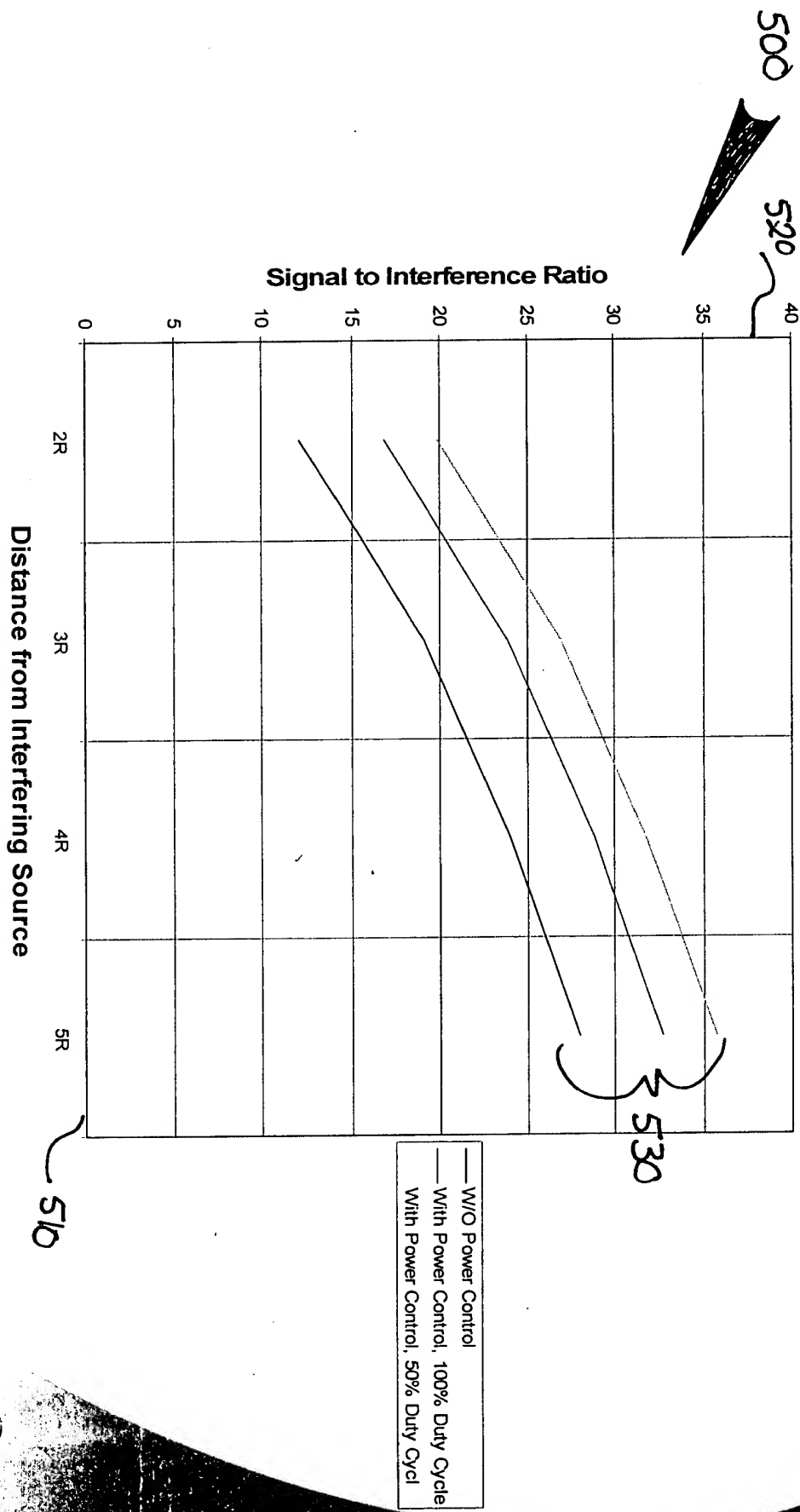
L: Diversity Order

Optimal Link Interference-Robustness Advantage Adaptive Antenna Spatial & Polarization Diversity



L: Diversity Order

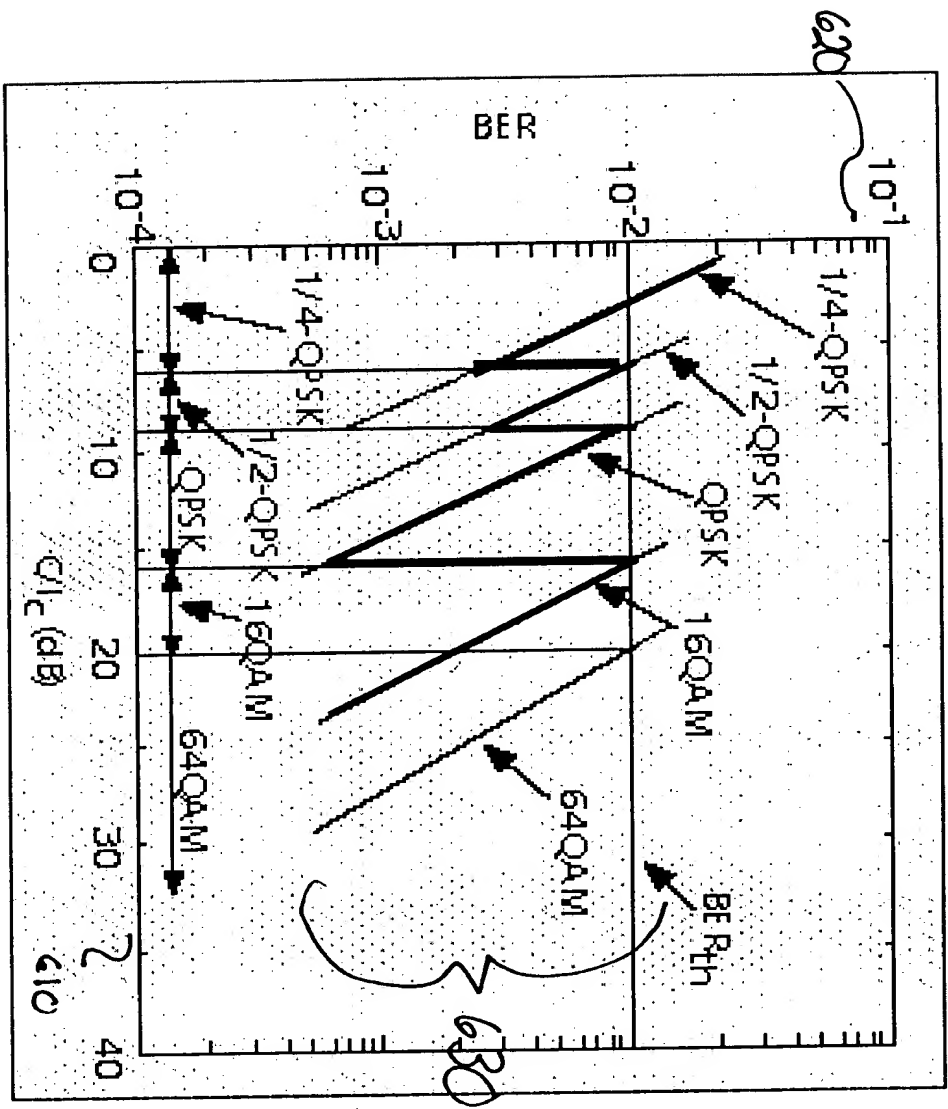
Optimalink Power Control Advantage



09620826.072100

600

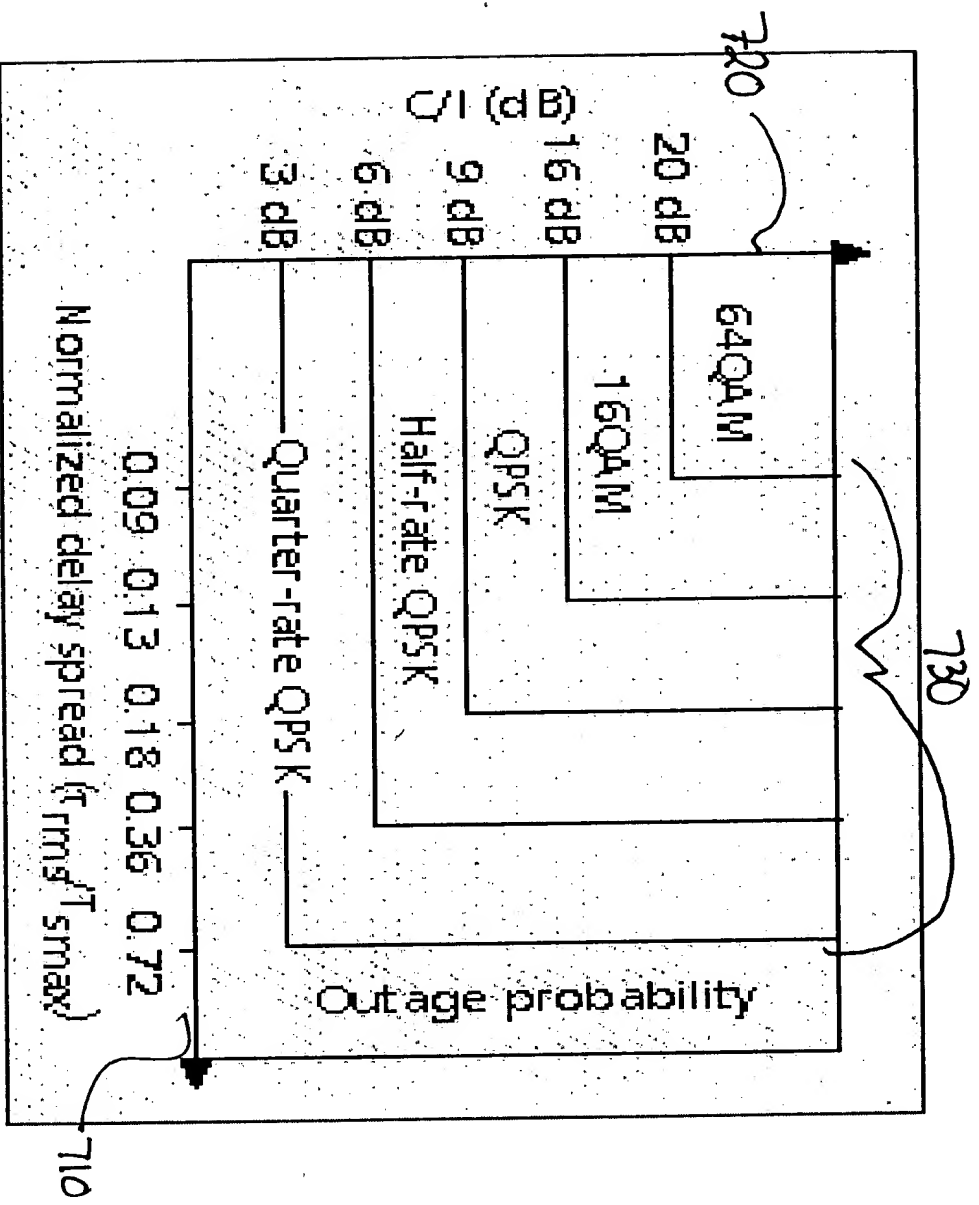
Optimal Link Interference-Robustness Advantage Adaptive Modulation & Adaptive Symbol Rate



09620826 072100

10

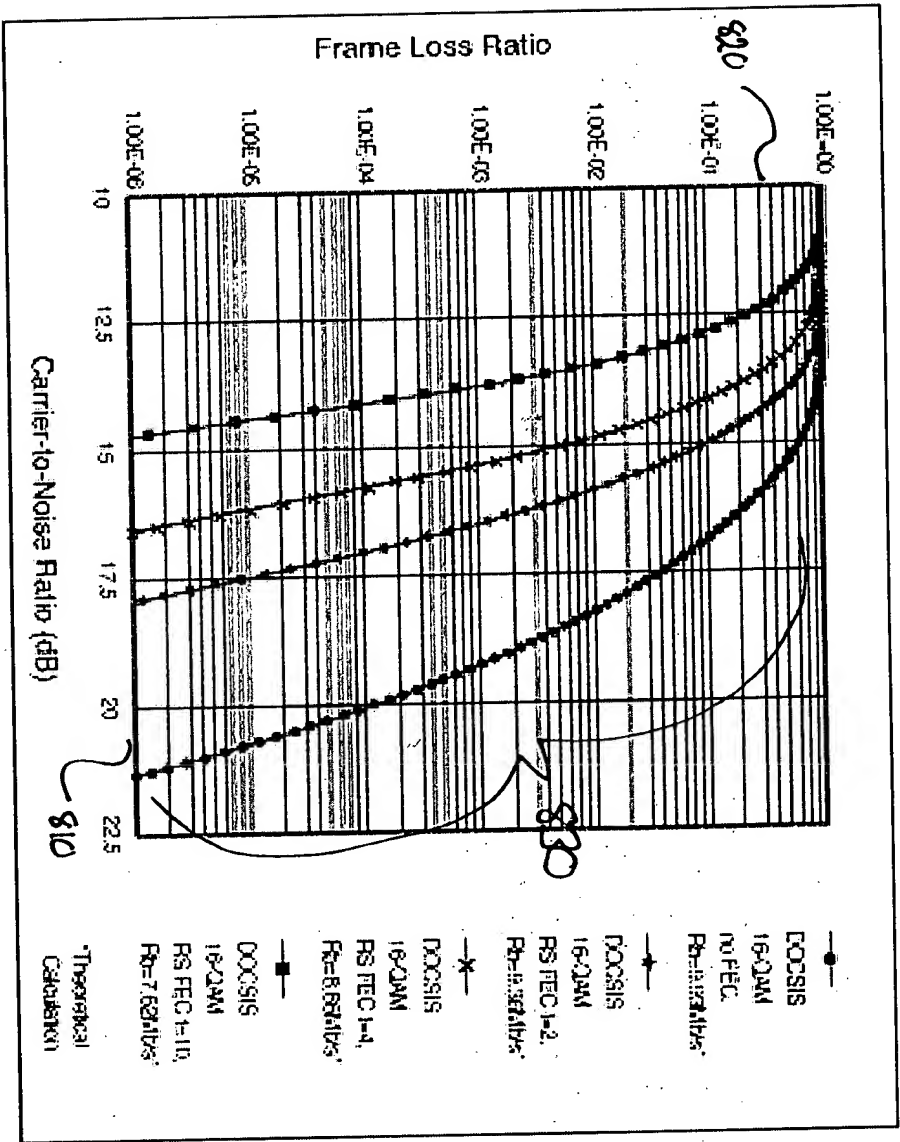
Optimal Link Multipath-Robustness Advantage Adaptive Modulation & Adaptive Symbol Rate



09620826-072100

800

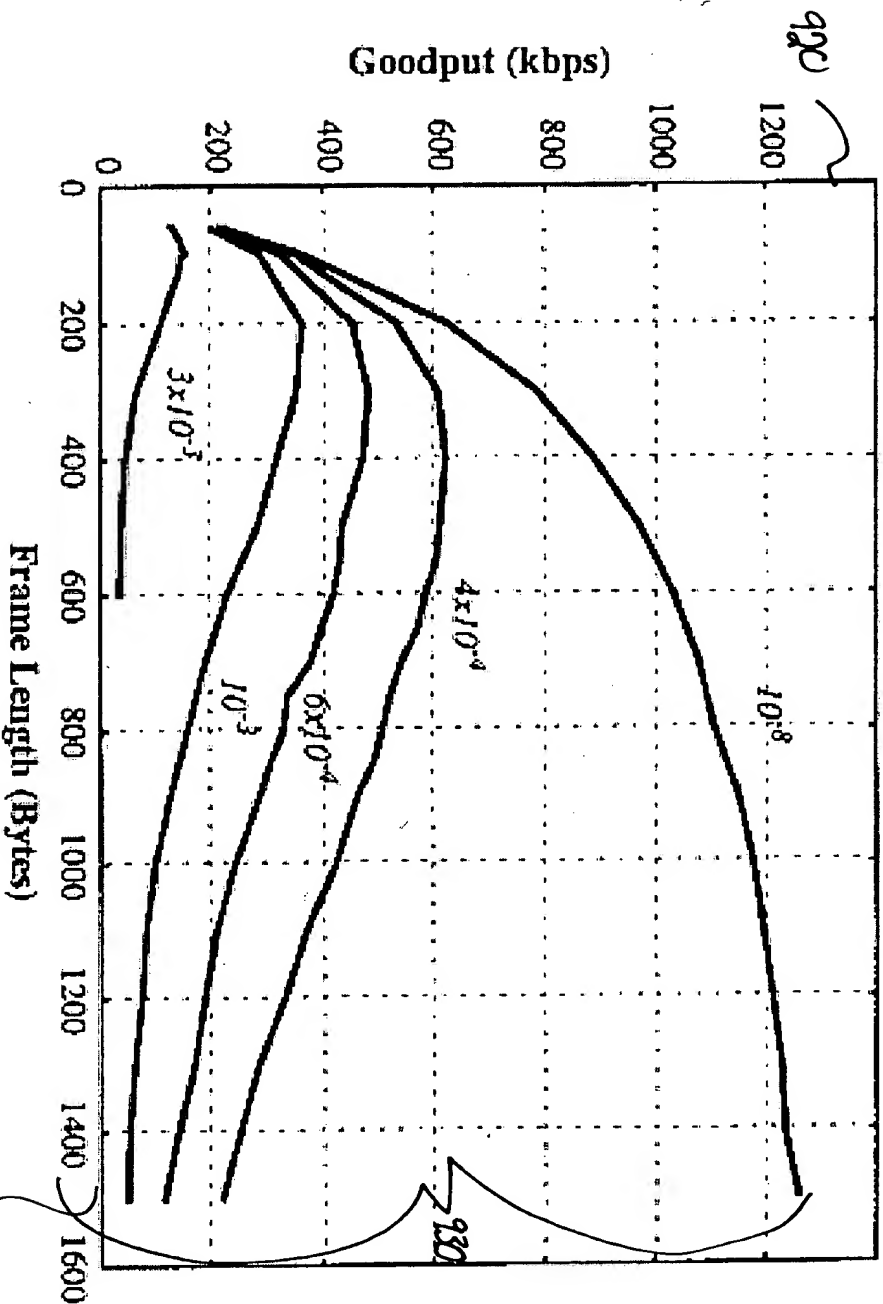
Optimal Link Error-Robustness Advantage Adaptive FEC



09620826.072100

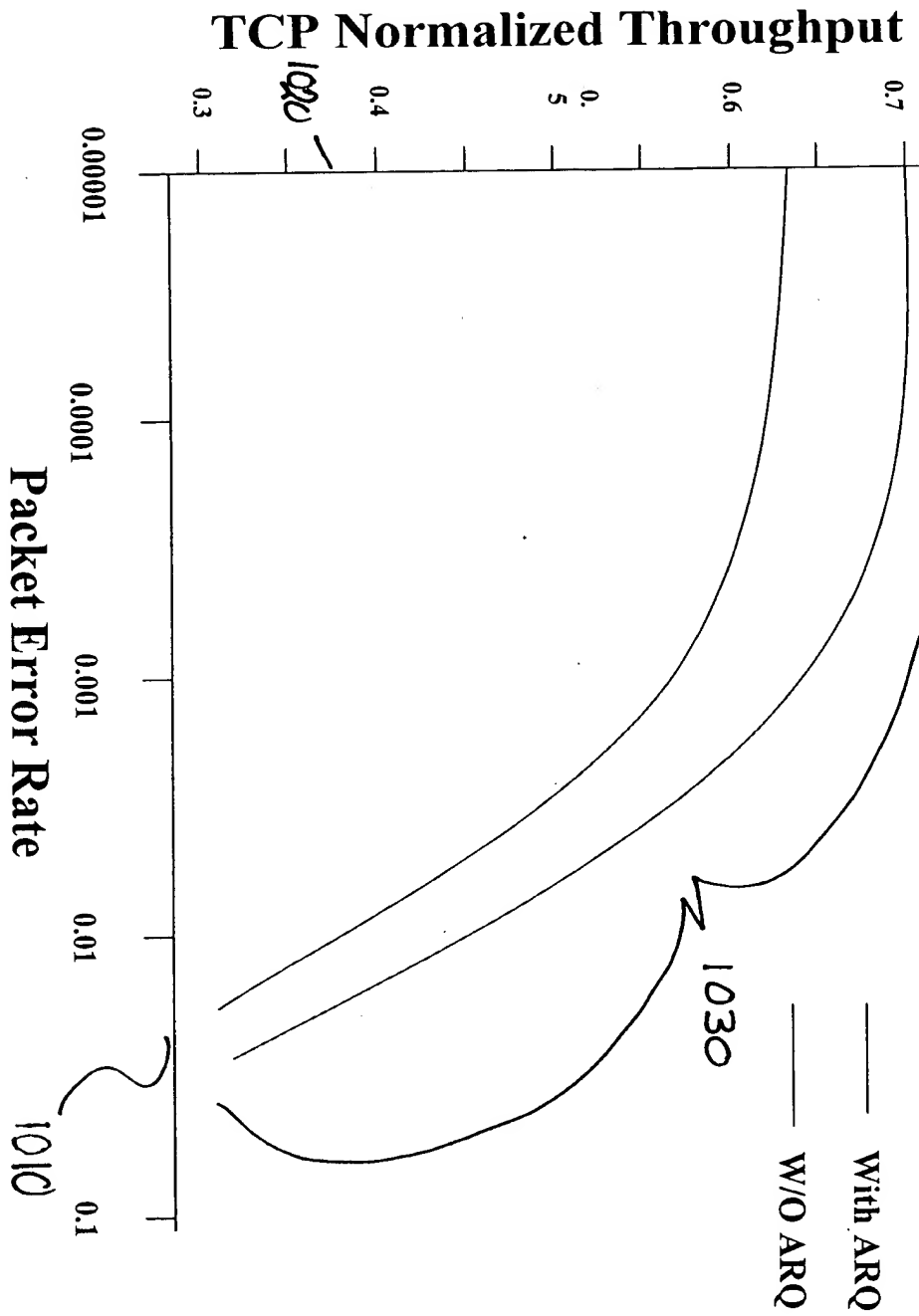
900

Optimalink Error-Robustness Advantage Adaptive Frame Length (PDU)



09620825.072100

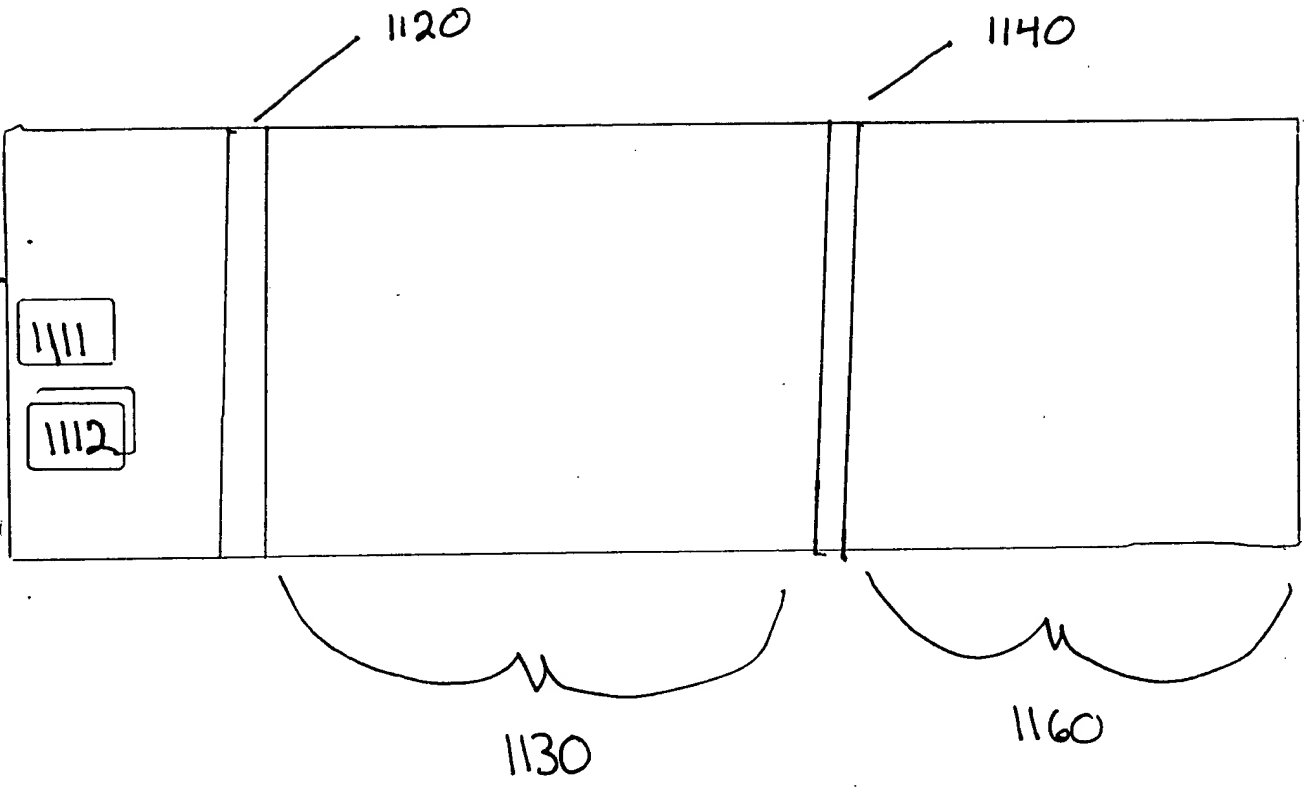
Optimalink Error-Robustness Advantage Adaptive ARQ



09620826, 072100

1100

00720.92802960
09620826.072100



1200

1210

The base station controller 120 and the customer premises equipment 130 are ready to begin a TDMA frame.

1211

The base station controller 120 and the customer premises equipment 130 conduct communication using a TDMA frame.

1212

The base station controller 120 determines the characteristics of the communication link with the customer premises equipment 130 in response to performance of the communication during the previous TDMA frame.

1213

The base station controller 120 determines exact values for the physical parameters and MAC parameters in response to characteristics of the communication link.

1214

The base station controller 120 determines new values for the physical parameters and MAC parameters in response to the results of the previous step and the performance of the equation 140.

09020826 072100